

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Song
Serial No.: Unknown
Filed: Herewith
Title: CASTABLE HIGH TEMPERATURE ALUMINUM ALLOY

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR 1.97 AND 1.98**

Commissioner for Patents
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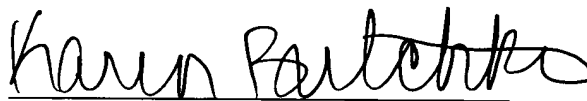
Sir:

Pursuant to Rule 1.98(d) copies need not be provided of the patents, copies of the publications listed in the attached Form PTO-1449 are provided however. None of these references discloses the invention claimed in the subject application.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

Dated: February 3, 2004



Karin H. Butchko
Registration No. 45,864
400 W. Maple Road, Suite 350
Birmingham, MI 48009
(248) 988-8360

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	Unknown
		Filing Date	Herewith
		First Named Inventor	Song
		Art Unit	
		Examiner Name	
		Attorney Docket Number	67097-022
Sheet 1	of 2		

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 6,315,948	11-13-2001	Lenczowski et al.	
		US- 5,045,278	09-03-1991	Das et al.	
		US- 6,246,453	06-19-2001	Watson	
		US- 5,037,608	08-06-1991	Tarcy et al.	
		US- 5,830,288	11-03-1998	Gigliotti, Jr. et al.	
		US- 5,811,058	09-22-1998	Baba et al.	
		US- 5,624,632	04-29-1997	Baumann et al.	
		US- 3,807,969	04-30-1974	Schoerner et al.	
		US- 3,807,016	04-30-1974	Schoerner et al.	
		US- 3,811,846	05-21-1974	Schoerner et al.	
		US- 4,806,307	02-21-1989	Hirose et al.	
		US- 4,874,440	10-17-1989	Sawtell et al.	
		US- 6,248,453	06-19-2001	Watson	
		US- 3,830,635	08-20-1974	Chia et al.	
		US- 4,983,358	01-08-1991	Hebsur et al.	
		US- 4,915,903	04-10-1990	Brupbacher et al.	
		US- 5,776,617	07-07-1998	Brady et al.	
		US- 6,258,318	07-10-2001	Lenczowski et al.	
		US- 5,055,257	10-08-1991	Chakrabarti et al.	
		US- 5,055,527	10-08-1991	Bronstert et al.	

[illegible]

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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		Filing Date	Herewith
		First Named Inventor	Song
		Group Art Unit	
		Examiner Name	
Sheet 2	of 3	Attorney Docket Number	67097-022

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		TITLE 40--PROTECTION OF ENVIRONMENT, Sec. 86.004-11 Emission standards for 2004 and later model year diesel heavy-duty engines and vehicles	
		"Binary Alloy Phase Diagrams; T.B. MASSALSKI; J.L. MURRAY; L.H. BENNETT, SAM, (1986) pp. 110-111, 114-115, 127, 129, 179, 182-184,	
		C. BARRET AND T.B. MASSALSKI, Structure of Metals, 3rd edition, Pergamon Press, (1980), pp. 486-534.	
		M.C. FLEMINGS, Solidification Processing, McGraw Hill, (1974), pp. 12-17.	
		T.W. CLYNE AND P.J. WITHERS, An introduction to Metal Matrix Composites, Cambridge University Press, (1993), pp. 1-11.	
		J.E. HATCH, Aluminum - Properties and Physical Metallurgy, ASM, Metal Park, OH (1984), pp. 32-39.	
		P. HAASEN, "Physical Metallurgy", 2nd edition (1986), Cambridge University Press, pp. 348-356.	
		W.A. KAYSSER, "Powder Metallurgy for Aerospace Applications", (1994), DLR, German Aerospace Research Establishment, Institute of Materials Research, Germany, pp. 3-9.	
		A. LAWLEY, Elevated Temperature Aluminum Alloys, The Institute of Metals, London, (1994), pp. 66-75.	
		P.P. MILLAN, JR., High Temperature Powder Metal Aluminum Alloys To Small Gas Turbines, Garrett Turbine Engine Company, Phoenix, Arizona, pp. 225-236.	
		W.M. GRIFFITH; R.E. SANDERS, JR.; C.J. HILDEMAN, Elevated Temperature Aluminum Alloys for Aerospace Applications, Structural Metals Branch, Wright-Patterson, AFB, OH, pp. 209-224.	

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		Filing Date	Herewith
		First Named Inventor	Song
		Group Art Unit	
		Examiner Name	
Sheet 3	of 3	Attorney Docket Number	67097-022

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		VITTORIO D'ANGELO; GABRIELE TANCORRE; SERGIO VITTORI, Properties of "Primal" Aluminium - 7% Silicon Casting Alloys, Febbraio 1981 - Alluminio, pp. 90-94.	
		A.D. JATKAR; R.R. SAWTELL, Aluminum PM Alloys for Aerospace Applications, International Conference on PM Aerospace Materials, (1991), pp. 15-1 - 15-13.	
		S.K. DAS; L.A. DAVIS, High Performance Aerospace Alloys via Rapid Solidification Processing, Materials Science and Engineering, (1988), pp. 1-12.	
		WM. D. POLLOCK; F.E. WAWNER; "Microstructure and Mechanical Properties of High Temperature Aluminum Composites", Symposium on High Temperatures Composites, Technomic Publishing Co., Inc. Lancaster, (1989), pp. 61-71.	
		S.L. LANGENBECK; W.M. GRIFFITH; G.J. HILDEMAN; J.W. SIMON, "Development of Dispersion-Strengthened Aluminum Alloys", Langenbeck et al. on Dispersion-Strengthened Alloys, pp. 410-422.	
		E.W. BLUMER, "High Temperature Aluminum Alloy Applications," The Minerals, Metals & Materials Society, (1991), pp. 241-250.	
		A.V. KURDYUMOV; S.V. INKIN; R. BEKHER; I. BEKHER, "Influence of Certain Elements on Structure and Surface Tension of Grade AL4 Alloys After Sodium and Strontium Treatments", Liteinoe Proizvodstvo, No. 7, (1988), pp. 16-19.	

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